

METHOD OF CONTROLLING TEMPERATURE DURING COATING DEPOSITION BY EBPVD

Abstract of Disclosure

A method of operating an EBPVD apparatus (10) to deposit a ceramic coating on an article (20), such that the thermal conductivity of the coating is both minimized and stabilized. More particularly, the EBPVD apparatus (10) is operated to perform multiple successive coating operations which together constitute a coating campaign. During the campaign, the surface temperatures of the articles (20) being coated do not exceed about 1000 ° C as a result of the combined heat transfer from the coating chamber (14) to the articles (20) being reduced during the course of the campaign, even though the temperature within the coating chamber (14) continuously rises during successive coating operations of the campaign. Ceramic coatings deposited at such relatively low temperatures exhibit lower and more stable thermal conductivities.

Figures